

REPORT  
ON THE  
HEALTH OF BILSTON  
*FOR THE YEAR 1895,*

BY  
T. RIDLEY BAILEY, M.D., EDIN.,  
**MEDICAL OFFICER OF HEALTH.**

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TO THE CHAIRMAN AND MEMBERS OF THE URBAN  
DISTRICT COUNCIL OF BILSTON.

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Gentlemen,

*I beg to present you with the following Report on the Health and Sanitary Condition of Bilston for the year ending December 31, 1895, being my ELEVENTH ANNUAL REPORT.*

## PREVENTION OF DISEASE.

**Scarlet Fever.**—Scarlet Fever is a disease rarely absent from populous districts, and one that has been with us now, in greater or less degree, for some years. During the year 1895, 48 cases were notified in 38 houses, as compared with 94 in 1894, 235 in 1893, 168 in 1892, and 63 in 1891. Only one death in the year, and that in the Hospital in the month of November, was registered.

From a subsequent table it will be seen that 34 of the cases occurred in the last quarter of the year. Three only were notified in January and two in February. The epidemic of the previous year was then at an end and no further case was known until June 9th when a child in Ettingshall showed symptoms of the complaint and was removed to the Cottage Hospital. In July only two cases, both also in Ettingshall, were notified, and in August four, three in the town and one in Bradley, were reported.

Comment in these reports has frequently been made on the extreme carelessness and indifference exhibited with regard to this and similar diseases. One illustration only of this need be given here. In November last at a large Bazaar which was held in the town, crowded with people daily for the greater part of a week, a young girl, peeling freely after a mild attack of Scarlet Fever, was present and not only mingled in the crowd but actually had charge of some children of a neighbour. It is impossible to state what the results, direct and indirect, of such conduct were and might have been, but this much is definitely known:—That in addition to three others in the same family who were attacked (and all four had to be removed to Hospital), one of the children she had charge of took the disease and was the means of conveying it to a brother and two sisters. This alone, therefore, accounts immediately for seven other cases, five having to be maintained for weeks in the hospital at the public expense! Of course it was pleaded, as it always is, that the condition was not recognised and its significance not understood.



**Measles.**—The town was entirely free from this common disease of children from July, 1893, until February last when it again appeared. In this month one death was registered and in March the complaint rapidly spread. In the beginning of April, as the cases seemed connected with certain schools, four of them, viz., St. Luke's, St. Edward's, the Primitive Methodists and Catholics were, on my recommendation, closed for one month. On May 28th St Mary's Schools also were closed for three weeks. These steps were no doubt helpful as the deaths diminished in number. One death was registered in February, 18 in March, 10 in April, 9 in May, 10 in June, 1 in July, 1 in August, and 1 again in November.

Measles is not included in the Notification Act—though local authorities have power to add it to the list—and it is therefore difficult to deal with and practically impossible to say how many cases existed in the town. Its extremely dangerous nature, however, is seen by noting the total deaths in this epidemic—51 (46 being in children under 5 years of age) which alone are equal to an *annual* death rate of the *whole population* (that is including all adults) of 2·1 per thousand and is one of the chief factors in the heavy rate of this year. Not for a very long time, if ever, has such a fatality been known, though in 1887 42 deaths were reported from measles—a disease much more deadly, for instance, than smallpox and yet how much more lightly regarded by the public !

This statement takes no account of the deterioration of health and all the secondary conditions to which this complaint frequently gives rise, and yet by the great majority of people it is regarded as a very simple matter. Simple it usually is if proper attendance and nursing are bestowed upon it from the onset. An important point to remember—one that adds greatly to the rapidity of its spread—is that children attacked are capable of conveying the disease to the healthy *before the rash is out* and before therefore, its true nature often is recognised.

**Typhoid Fever.**—Sporadic cases of Typhoid Fever are always appearing but in the last quarter of the year quite a localised outbreak occurred. Nine cases were notified in October (3 being in Wolverhampton Street) ; 14 in November (5 being in Wolverhampton Street) and 11 in December (7 being in the same street). These 15 cases in one street were in 11 houses and all were identified with similar local conditions : houses dirty and ill-ventilated (most being back-to-back) ; yards ill-drained and some covered with stagnant water ; ash-pits partly dilapidated and some uncovered, &c., &c. It is not hard to understand that, given the first case, the disposal of infected excrement in such an environment would readily cause the disease to spread. The milk and water supplies were carefully noted in all cases and a surprise visit paid to a neighbouring dairy.

It was very evident that no satisfactory treatment of these cases could be undertaken in their homes and it became absolutely necessary therefore to devise some means whereby the patients could be removed from their surroundings. After anxious consideration a

special meeting of the Sanitary Committee was called on Dec. 5th, and it was advised that the iron building which had been hitherto reserved for smallpox, and which, fortunately, had been empty for some months should at once be thoroughly cleansed and disinfected and the patients taken to it. This was promptly done and the result has been that since Dec. 18th no further case of typhoid has occurred in the street, and only four (in three houses) were notified in any other part of the town in the month of January of this year.

Some of these houses too fittingly illustrated some special dangers constantly present in cases of infectious outbreak. Many were back to back and the excrement from the front ones had to be taken through the street—in two cases at least for several yards—before it could be deposited. There is no doubt that back-to-back houses, where through ventilation is absolutely impossible, ought to be prohibited, but until public opinion on the subject is more ripe it would be an extreme step to condemn them *en masse*. It has been for many years too, a practice here to erect dwellings on “made soils,” and this, I believe to be an important item in the causation of Typhoid. The ground, often unhealthy from the beginning, readily becomes contaminated with different matters, emanations are given off, varying atmospheric conditions add to the evil and the result frequently is an environment even dangerous though often unsuspected. The insanitary conditions referred to in these cases were dealt with as far as they could be.

**Smallpox.**—On August 1st information was received of a case of Smallpox in Ettingshall. The child was promptly removed the same day to the Iron Hospital which had been used in the previous year for the isolation of this disease. Two more children in the same house—one an unvaccinated baby aged 8 months—were attacked a few days subsequently and were also promptly removed. The house was disinfected and the outbreak, fortunately was at an end.

On careful enquiry it was discovered that some friends from a village in Derbyshire, where Smallpox existed, and where indeed some children of the household had been ill with it, had come on a visit to the family.

No better evidence can be given than this of the immense value of immediate notification and early and complete isolation in infectious diseases. Had the Hospital not been available at the moment there is little doubt but that we should have had a considerable and rapid extension of the disease.

**Diarrhœa.**—No less than 42 deaths were attributed to Diarrhœa, which, though a disease largely influenced by the temperature of the summer months, is essentially an infantile ailment, and one dependent therefore partly upon insanitary surroundings. It is certain, however, that a great proportion of cases in this district are the direct outcome of improper feeding of infants. Quite young babies are given such things as gruel, boiled bread and milk, biscuits, &c., with the result that the infantile mortality is very greatly and unnecessarily increased. Death takes place often from Diarrhœa, sometimes from convulsions, bowel and stomach complaints or similar



diseases. Too much stress cannot be laid on this subject and every opportunity should be taken of teaching mothers the proper method of rearing children. Milk is the natural, and should be the only, food of infants—preferably the mother's milk. When from disease or other cause this is not available, milk from the cow should be procured. In later months when other things are to be added it would be best to consult a medical man.

The following statement gives the number of deaths, above and below five years of age, for the past ten years and shows the largest number to have been recorded last year, due no doubt, in part to the excessive heat of September and October when 19 of the deaths were registered.

<i>Deaths from Diarrhœa</i> ...	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886
Infants under 5 years ...	38	9	27	13	15	23	17	6	11	24
Above 5 years ...	4	1	8			2	1	1	5	7
	42	10	35	13	15	25	18	7	16	31

**Diphtheria and Membranous Croup.**—These diseases are bracketed together because they resemble each other so closely and the terms are interchangeable with some medical men. They are extremely fatal diseases and 11 cases were notified during the year, 3 in February, 1 in March, 2 in May, 2 in July, 1 in August and 2 in October.

**Influenza.**—Thirteen deaths, 4 in children under 5 years of age, have been directly attributed to this disease, 2 in February, 1 in March, 6 in April, 1 in May, 1 in July, 1 in October and 1 in November. There has, however been nothing like the epidemic of previous years, the cases being neither so numerous nor so severe, though it is probable that it has indirectly contributed much more to our mortality than on the first glance appears.

**Zymotic Diseases.**—118 deaths were ascribed during the year to Zymotic Causes, giving a death rate of 5.02 per thousand of the whole population. The rate was only 1.7 in 1894; 3.1 in 1893; 2.7 in 1892; 1.3 in 1891 and 1.7 in 1890.

The subjoined table supplies the number of these deaths during the past ten years, and shows that Measles and Diarrhœa not only account for 93 of these in the past year but that the mortality from these two diseases in 1895 is higher than the greatest yearly mortality from all the zymotic causes combined

<i>Deaths from</i>	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886
Scarlet Fever ...	1	8	9	6		1	3	2		
Smallpox ...	1	1						3	1	
Measles ...	51		15	13	9	12	5		42	4
Whooping Cough ...	3	12	7	23	6	3	14	5	11	6
Typhoid Fever ...	8	1	4	6	1		4	2	7	4
Diphtheria and Membranous Croup }	12	8	3	4	5		5	9	8	6
Diarrhœa ...	42	10	35	13	15	25	18	7	16	31
	118	40	73	65	36	41	49	28	85	51



**Vaccination.**—The returns of the Vaccination Officer are given for the years 1890, 1891, 1892, 1893, 1894 and the first half of 1895.

	Half Year to June 30, 1895.	Year 1894	Year 1893	Year 1892	Year 1891	Year 1890
BIRTHS REGISTERED...	489	926	939	929	946	891
Successfully Vaccinated	332	731	734	736	755	741
Insusceptible	3	4	6	9	2	5
Died before Vaccination	58	114	145	117	119	93
Postponed	14	10	19	41	40	20
Removed from District	35	34	35	26	30	29
Refusals and not fit cases	47	33				
	489	926	939	929	946	891

## INFECTIOUS DISEASES HOSPITAL.

During the year 23 patients (8 being under 5 years of age) suffering from Scarlet Fever were admitted to the temporary Cottage Hospital, of whom 1 died.

In the Iron building three children (in one family) suffering from Smallpox were isolated in August. In December, as previously intimated, six children (two being under 5 years of age) ill with Typhoid Fever were treated in the same structure. One death from Smallpox and 1 from Typhoid were reported.

The need of proper isolation accommodation for infectious diseases is well known to the Council and the advantage of combination with one or more neighbouring authorities—*e.g.*, Coseley or Willenhall—are self evident. Whether this should be by voluntary arrangement or through the medium of the County Council is a matter for consideration, but it is to be hoped that the provision of a proper Disinfecting Apparatus will be remembered at the same time. No means of any kind now exist for disinfecting bedding, clothing, &c., and I cannot get rid of the suspicion that many cases, the origin of which it is impossible to discover, of infectious disease, are due to this great want. A proper Ambulance and Public Mortuary are also much required.

## SANITARY WORK.

### Infectious Diseases (Notification) Act, 1888.

During the year 109 certificates under this Act were received, as compared with 170 in the previous year, *viz.*, 48 of Scarlet Fever, 30 of Typhoid Fever, 3 of Smallpox, 11 of Diphtheria and Croup, and 17 of Erysipelas.

The following is a table of the monthly notifications received this year, and the totals of this and the four previous years. It serves to show, at a glance, not only the rise and fall of these infectious diseases in the town during 1895, but also enables a comparison to be made from the time the Act was put in force.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year 1895	1894	1893	1892	1891
Scarlet Fever ...	3	2				1	2	4	2	9	14	11	48	94	235	168	63
Typhoid Fever ...	1		2				2		3	5	8	9	30	14	18	36	13
Puerperal Fever ...								3						2	5	1	2
Smallpox ...													3	32	4		
Diphtheria and Membranous Croup }		3	1		2		2	1		2			11	9	8	5	2
Erysipelas ...					3	2	1		2	6	1	2	17	19	23	34	12
Total	4	5	3		5	3	7	8	7	22	23	22	109	170	293	244	92

**Workshops and Bakehouses.**—A proper list of these is kept and they are regularly visited. By section 26 of the Factory Act 1891 notices of the opening of new workshops, and by section 41, 1895, of all workshops, have to be sent to H.M. Inspector of Factories and when he receives such notices he is required to forthwith forward them to the Sanitary Authority. Proceedings must be taken if wearing apparel is made in a factory or workshop where any inmate in the building is suffering from Scarlet Fever or Smallpox. It is a great pity that this provision was not extended to include *any* infectious disease.

**Unhealthy Dwellings.**—There is a very great difficulty in dealing with small, wretched property. The tenants, in many cases, are hardly able to pay even low rents, and to declare their homes unfit for habitation simply means turning them into the streets. It will be a question for consideration in the near future whether it may not be advisable to deal on a larger scale, with some of the over-crowded areas or in some way to cause to be erected houses in the more open parts of the town. These houses should provide, at a reasonable rent, such accommodation as would allow of the proper separation of the sexes and a limited number of inmates in each bed-room. Back-to-back houses ought to be abolished and such system of excrement disposal as the privy system, the use of pails, &c, should be, as soon as possible, discontinued and the substitution, at least in all new properties, of the water carriage system encouraged. This latter should be remembered in connection with the question of the sewerage of the town. The introduction of the new water supply—the completion of which is expected in a few months—will considerably add to the ease with which this alteration could be made, and would allow of the thorough systematic flushing of the sewers.

In the meantime efforts should be directed to reduce to a minimum the size of privy cess-pits, they should be ventilated and their contents mingled with ashes. Regular and frequent removal should also be insisted upon; and ash-pits should be as small as possible and made thoroughly water-tight above and below.

## VITAL STATISTICS.

**Births.**—957 children, 485 males and 472 females, were born during the year, being an increase of 38 on the previous year, and (taking the population at 23,500) giving a birth-rate of 40·7. The

following gives the number of Births in each quarter of the years 1895 and 1894, distinguishing the sex.

		Year 1895.			Year 1894		
		Males.	Females.	Total	Males	Females	Total.
1st Quarter	...	128	146	274	102	107	209
2nd Quarter	...	112	111	223	133	127	260
3rd Quarter	...	125	104	229	121	107	228
4th Quarter	...	120	111	231	118	104	222
		485	472	957	474	445	919

The subjoined table of Births for the past ten years shows that the number this year is the largest in the decade.

Year.	Male.	Female.	Total.
1886	481	455	936
1887	420	418	838
1888	449	428	877
1889	437	458	895
1890	434	461	895
1891	469	481	950
1892	484	439	923
1893	466	449	915
1894	474	445	919
1895	485	472	957

In this connection it may be of interest to give the average birth-rate of Staffordshire, and of the Urban and rural districts respectively for the six years 1889-94, and the corresponding rates for England and Wales and the large towns in England. These are taken from the Registrar-General's returns and are quoted by Dr. Reid in his Annual Report on the County for last year.

		Birth-rate per 1,000 of Population					
<i>Districts</i>		1889	1890	1891	1892	1893	1894
Stafford-shire	Combined Urban and Rural	33·5	32·7	35·7	35·1	35·7	34·3
	Urban ...	35·2	34·5	37·3	36·3	36·6	35·4
	Rural ...	29·5	28·6	31·6	32·2	33·3	31·6
England and Wales ...		31·1	30·2	31·4	30·5	30·8	29·6
Large towns in England ..		30·9	30·4	32·5	21·8	31·8	30·6

**Deaths.**—634 deaths from all causes were registered in the year, 327 males and 307 females, being an increase of 181 on the previous year, of 100 as compared with 1893 and giving a death-rate of 26·9 per thousand of population. The average death-rate for the past five years is 22·5 and for the decade 1886-95, 22·3 per thousand.

Before discussing the reason for this extremely heavy mortality it will be better to give some details for comparison with individual years.



## TABLE OF DEATHS

Shewing the number under 1 year, under 5 years, under 15 years under 25 years, under 60 years and above 60 years.

	1895	1894	1893	1892	1891
Children under 1 year... ..	215	161	185	203	200
Above 1 year and under 5 years of age	163	61	80	201	89
„ 5 years „ 15 „	22	21	26	29	22
„ 15 „ 25 „	15	16	22	11	19
„ 25 „ 60 „	96	99	91	90	104
60 years and upwards ... ..	123	95	130	95	122
	634	453	534	529	556

The following Table gives the number of Deaths during the past ten years, distinguishing the sex.

Year.	Male.	Female.	Total.
1886	244	251	495
1887	314	268	582
1888	218	234	452
1889	267	252	519
1890	260	230	490
1891	282	274	556
1892	286	243	529
1893	277	257	534
1894	239	214	453
1895	327	307	634

The number of Deaths during the last ten years, classified according to age are here given.

Year.	at all ages.	under 1 year.	1 and under 5	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
1886	495	172	82	18	16	102	105
1887	582	189	115	28	26	106	118
1888	452	141	66	24	19	106	96
1889	519	183	98	25	21	83	109
1890	490	163	82	23	17	110	95
1891	556	200	89	22	19	104	122
1892	529	203	101	29	11	90	95
1893	534	185	80	26	22	91	130
1894	453	161	61	21	16	99	95
1895	634	215	163	22	15	96	123

**Respiratory Diseases.**—115 deaths were due to diseases of the respiratory organs as compared with 84 from the same causes in the previous year, 51 being in children under 5 years of age. Of these 11 here registered in the month of January, 17 in February, 11 in March, 15 in April, 11 in May, 5 in June, 3 in July, 5 in August, 4 in September, 5 in October, 13 in November and 15 in December.

**Consumption.**—Consumption caused 19 deaths as compared with 17 in the year 1894, 16 in 1893 and 15 in 1892.



TABLE OF DEATHS for the Four Quarters of 1895, 1894, and 1893, classified according to Diseases and Ages.

1895.	Age.	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic")	Whooping Cough.	Con'd. Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fev.	Ague.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Inquests.	Uncertified.	Influenza.	All Other Diseases.	Total at Ages Stated.	TOTAL.
1st QUARTER	Under 5	18	...	...	...	3	...	...	...	...	5	...	...	...	...	...	...	...	14	...	2	...	1	45	88	166
	5 upwds.	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	6	25	2	8	2	...	32	78	
2nd QUARTER	Under 5	25	...	...	...	1	...	...	...	...	3	...	...	...	...	...	...	...	12	...	4	...	3	59	108	171
	5 upwds.	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	19	2	2	...	4	28	63	
3rd QUARTER	Under 5	1	...	...	...	3	...	...	...	...	16	...	...	...	...	...	...	...	7	...	2	1	...	69	102	154
	5 upwds.	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	5	5	2	4	...	1	31	52	
4th QUARTER	Under 5	1	...	...	...	4	...	...	...	...	14	...	...	...	...	...	...	...	18	...	1	3	...	37	80	144
	5 upwds.	...	...	...	...	...	...	6	...	...	1	...	...	...	...	...	...	4	15	6	4	1	...	25	64	

1894.	Age.		Con'd. Fevers.										Total.											
	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Group (not "spasmodic")	Whooping Cough.	Typhus.	Euteric or Typhoid.	Other or Doubtful.	Diarrhoea and Dysentery.	Cholera.	Rheumatic Fev.		Mysipelas.	Pyæmia.	Eutemperal Fev.	Ague.	Pthistis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Inquests.	Uncertified.	Influenza.	All Other Diseases.
1st QUARTER	Under 5	2	1	4	1	4	...	...	...	...	...	1	...	...	...	...	...	7	5	3	2	34	53	109
	5 upwds.	1	...	...	1	...	...	...	...	1	...	...	...	...	...	6	6	13	5	6	...	24	56	
2nd QUARTER	Under 5	2	1	4	1	4	...	...	...	1	...	...	...	...	...	...	...	5	1	4	2	40	59	131
	5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	15	1	7	1	2	42	
3rd QUARTER	Under 5	1	2	2	2	2	...	...	...	5	...	...	...	...	...	...	...	2	...	2	2	26	42	81
	5 upwds.	1	1	...	...	...	...	1	...	...	...	...	...	...	...	2	2	4	3	5	...	1	21	
4th QUARTER	Under 5	1	2	2	2	2	...	...	...	3	...	...	...	...	...	...	...	21	...	3	1	35	68	132
	5 upwds.	...	...	1	...	1	...	...	...	1	...	...	...	...	1	5	...	...	17	7	5	4	22	

1893.	AGE.	Con'd. Fevers.													TOTAL.											
		Smallpox.	Measles.	Scarlatina.	Diphtheria.	(roup (not "spasmodic")	Whooping Cough.	Typhus.	Enteric or Typhoid.	Other or Doubtful.	Diarrhoea and Dysentery.	Cholera.	Rheumatic Fevr.	Erysipelas.		Pyæmia.	Puerperal Fevr.	Ague.	Pththisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Inquests.	Uncertified.	Influenza.	All Other Diseases.	Total at Ages Stated.
1st QUARTER	Under 5	3	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	7	1	1	1	..	30	44	101
	5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	19	3	1	..	29	57		
2nd QUARTER	Under 5	11	..	1	..	..	..	1	..	2	..	..	..	..	..	..	..	7	3	..	1	1	..	39	58	131
	5 upwds.	..	1	..	1	..	..	..	..	7	..	..	..	..	..	..	..	18	6	4	1	..	..	27	73	
3rd QUARTER	Under 5	1	3	..	..	1	..	..	..	23	..	..	..	..	..	..	1	4	4	..	4	2	..	46	85	140
	5 upwds.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4	4	3	..	..	1	42	55	
4th QUARTER	Under 5	..	1	1	1	5	..	2	..	2	..	..	..	..	..	..	..	28	1	..	..	1	37	78	162	
	5 upwds.	..	3	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	20	5	2	..	1	47		84

TABLE OF DEATHS classified according to Diseases, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE, FOR THE PAST TEN YEARS.

YEARS.	AGE.	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic").	Whooping Cough.	Cont'd Fevers.			Diarrhea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phtthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Inquests.	Uncertified.	All other Diseases.	Influenza.	Totals at Ages Stated.	Total at all Ages.	
1886	Under 5	5	3			6	6			1		24						6	40	6	5	157		254	495	254	
	5 upwds.	1						3		7					1		8	58	18	8	5	132		241			582
1887	Under 5	38				6	10					11						5	64	1	6	20	143		304	278	
	5 upwds.	1	4	1	1	1	1	7		5				1			9	100	10	12	8	118		278	452		207
1888	Under 5					7	5					6							47	2	3	5	139			207	
	5 upwds.	3	2			2		2		1		1					21	69	23	5	7	111		245	519	281	
1889	Under 5		5	3		3	14					17			1			1	60		3	13	161				281
	5 upwds.				1	1		4		1		1		1	1		23	49	11	7	17	122		238	490	245	
1890	Under 5		12	1		1	3					23						2	42		3	15	142	1			245
	5 upwds.					1					2						14	75	16	4	11	114	8	245	556	289	
1891	Under 5		8			4	6					15						4	55		6	18	171	2			289
	5 upwds.	1				1		1						1			29	79	10	15	2	125	3	267	529	305	
1892	Under 5		13	3		2	19					13						1	56		14	8	174	2			305
	5 upwds.			3	1	1	4	6		6				1			14	54	8	25	2	102	3	224	534	265	
1893	Under 5		15	5		1	7		2			27						1	42	2	5	4	152	2			265
	5 upwds.			4		2		2				8			1		15	61	18	10	1	146	2	269	453	222	
1894	Under 5			6		6	12					9							35		12	6	135	1			222
	5 upwds.	1		2	1	1		1				1		1			17	49	16	23	1	109	7	231	634	378	
1895	Under 5	1	46	1		11	3					38							51		9	4	210	4			378



TABLE showing the number of deaths in each quarter of 1895 ;  
classified according to age.

Quarters	at all ages.	under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards
1st	166	46	42	6	3	25	44
2nd	171	49	59	8	1	25	29
3rd	153	68	34	4	5	18	24
4th	144	52	28	4	6	28	26
TOTAL	634	215	163	22	15	96	123

In considering the death-rate in Bilston it must not be forgotten that this is essentially an artisan population without any residential or suburban element and should be compared, not with an ordinary town as a whole, but only with those crowded districts in large cities where the masses of the people live. In 1894 too exceptional conditions of weather reduced the mortality here and throughout the country, as the death-rate, not only in Staffordshire, but in England and Wales, generally decreased about  $2\frac{1}{2}$  per thousand of population, and in the large towns even 3 per thousand. This is well shown by the following table, given by Dr. Reid, of comparative figures for the six years 1889-94.

Death-rate per 1,000 of Population.

	STAFFORDSHIRE.			ENGLAND.		
	General	Urban	Rural	General	Large Towns	Country Districts
1889	18.0	18.9	15.4	17.9	19.2	16.5
1890	19.8	20.0	16.3	19.5	21.6	17.5
1891	19.9	20.7	18.1	20.2	22.4	18.5
1892	18.8	19.2	17.9	19.0	20.6	18.1
1893	18.6	19.5	16.3	19.2	21.5	17.4
1894	16.2	16.5	15.4	16.6	18.0	15.6

On a careful examination of the various tables given above it will be found that the chief causes for the extraordinary mortality here during the year were ;—

1. The Epidemic of Measles :—This alone, as already pointed out, accounts for 51 deaths, all but five being in very young children, The disease was prevalent in the four quarters of the year and reached its maximum in the second quarter. In addition to these deaths directly attributed to this complaint it is impossible to say how many more were the indirect result owing to secondary developments, to impaired health and a consequent pre-disposition to succumb to other diseases.

2 The almost unprecedented Weather of the Year :—This affected the deaths in two ways. (a) During the early months, particularly, when the cold was intense by increasing considerably the fatality from respiratory diseases, the deaths from which, as already stated, were 31 in excess of the previous year. The very prolonged frost too caused general stoppage of works, much consequent poverty,

a low condition of vitality and less ability therefore to resist any illness. (b) The sub-tropical heat in the autumn greatly increased the number of deaths, particularly in young children, from Diarrhœa and diseases of the bowels. 42 deaths from Diarrhœa alone were recorded as against ten in 1894

To tabulate these causes we find

No. of Deaths from Measles	..	51
No. ,, from Chest Diseases above those of 1894 (115—84)	31	
No. ,, from Diarrhœa above those in 1894 (42—10)	..	32

or 114 deaths due to causes that can easily be explained and some of which, at least are beyond control. This is equal to a rate of 5.5 which if taken from the year's rate ( $26.9 - 5.5 = 21.4$ ) reduces it below the average rate of the last ten years.

It will naturally be anticipated that the infantile mortality, unfortunately always high here, will be exceptionally great this year, and will, in fact, show the largest proportion of the increase. This is what we find, more than half the deaths being in children under 5 years of age, and the rate in infants under 1 year equal to no less than 224 per thousand of the registered births. The greater excess, however, is between the ages of 1 and 5 years—the age in other words, for the most part, of the fatal cases of Measles. The influence of Measles and Diarrhœa has already been discussed, but there are other causes, constantly present, that have a most serious relationship to our infant mortality. Very early marriages among the poor often result in large families, with puny premature children, handicapped from the beginning with weak constitutions. Mothers, too, cannot leave home without their children, and this leads to constant exposure in all weathers. Improper food has already been mentioned, and this contributes to the death-rate directly and also renders the children more liable to succumb to attacks of Bronchitis, Congestion of the Lungs, &c., diseases very fatal in early life. Over-crowding, too, of the little ones in small badly-ventilated rooms, where the air is usually close and frequently foetid, and where, moreover, the children frequently occupy the same bed with their parents, is an important factor. Actual neglect, with dirty, foul surroundings, and poverty must also not be forgotten.

It is extremely difficult to deal with the habits of these people and there is more scope for the direct practical teaching of the sweetnesses of life than is sometimes dreamt of. As previously stated, to declare some houses unfit for habitation, where extreme poverty exists and even low rents are largely in arrear, would result in the turning of the people into the streets, and a much worse development of affairs. Cookery, it is satisfactory to know, is to be taught in the proposed new Technical Schools; it should be such as will be suitable to the daily needs of the masses and carried out with such means only as would be at their disposal, even in the poorer houses. Classes for the teaching, by suitable ladies, of nursing, feeding of children, the importance of clean surroundings, pure houses, &c., would be most useful if only the mothers would attend. In the near future too, the establishment

of wash-houses, say a central and two branch ones, at Bradley and Ettingshall, respectively should be considered. In time people would probably be taught to use them, with the result that there would be much less discomfort and "upset" on "washing-days," and the houses thereby made brighter and more comfortable for the husband and children.

The tables required by the Local Government Board and the Staffordshire County Council are appended, as well as the Sanitary Inspector's Statement.

I am, Gentlemen,

Yours faithfully,

T RIDLEY BAILEY, M.D, EDIN.,

Medical Officer of Health.

BILSTON, February 14th, 1896.

**SUMMARY OF SANITARY WORK** done in the Inspector of Nuisances' Department, during the year 1895, in the Urban Sanitary District of Bilston.

		Inspections and Observations made.	Formal Notices by Authority.	Nuisances Abated after Notice.
Dwelling Houses & Schools.	Foul Conditions Houses Cleansed ..	31		
	Structural Defects Houses Repaired ..	27		
	Over-crowding, 2 cases, 5 cases abated without Notices served ..	8	2	2
	Unfit for Habitation ..			
	Lodging-houses, No. of Inspections made ..	64		
	Dairies and Milk-shops 103 Inspections made and 58 Cleansed and Linewashed ..	103		
	Cowsheds, 81 Inspected, 37 Linewashed ..	81		
	Bakelhouses, 47 Inspections made, all Linewashed twice over ..	47		
	Slaughter-houses, 70 Inspections made, 5 cases of Obstructed Drains, 1 New Floor laid ..	70		
	Canal Boats, 52 Inspected and found in Compliance with the Act ..	52		
	Ashpits and Privies, 8017 Cleansed, 29 Ashpits Erected, 19 Repaired, 60 Privies Repaired and Linewashed ..	8125	5	5
	Deposits of Refuse and Manure Removed ..	63		
	Water Closets in an Unsanitary Condition ..	17		
	Defective Traps, Four Cases ..	4	2	2
	No Disconnection ..	nil		
House Drainage	Other Faults, Obstructions ..	5		
	Water Supply, Plentiful Supply of Tap Water ..			
	Pigsties, Requiring Linewashing 14, and Requiring Repairs 4 ..	18		
	Animals improperly kept ..	6		
	Offensive Trades ..	nil		
	Smoke Nuisances ..			
	Other Nuisances, Fowls and Rabbits kept in Houses ..	13		
	TOTALS ..	8734	9	9

	Nos.
Two Seizures of Unwholesome Food, One case of Bad Meat, Case Dismissed. One Case of Bad Meat, fined £5 and costs ..	2
Samples of Food taken for Analysis ..	nil
.. .. Found Adulterated ..	nil
.. .. of Water taken for Analysis ..	nil
.. .. Condemned as unfit for use ..	nil

**PRECAUTIONS AGAINST INFECTIOUS DISEASE.**

Lots of Infected Bedding Disinfected ..	64
Houses Disinfected after Infectious Disease ..	211
Schools ditto ..	nil
Prosecutions for not Notifying Existence of Infectious Disease ..	nil
Convictions ditto ..	nil
Prosecutions for Exposure of Infected Persons or things ..	nil
Convictions ditto ..	nil
Removed to the Infectious Hospital during the year. Three Cases of Smallpox, Six Cases of Typhoid Fever, and Twenty-three Cases of Scarlet Fever ..	32

NOTE. Where an Inspection or Notice embraces more than one defect, it may be enumerated separately as regards each such defect.

*Signed,* **WALTER HUGHES, Assoc. Sant. Inst.**  
**Inspector of Nuisances.**

*Date,* February 10th, 1896.



*Urban Sanitary District of Bilston.*

(A) Deaths registered during the year 1895, classified according to Diseases and Ages, showing also the Population and the Births therein during the year.

	Popula- tion.		Registered Births.			Deaths from all Causes at subjoined Ages										Mortality from subjoined causes, distinguishing deaths of Children under 5 years of age.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Census, 1891.	Estimated to middle of 1895	Males.	Females.	Total.	At all Ages.											Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fever.					Uncertified.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea or Dysentery.	Rheumatic Fever.	Influenza.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Inquests.	All Other Diseases.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Males.	Females.	Total.	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 60.	60 years and upwards.	Typhus.						Enteric or Typhoid.	Continued	Relapsing	Puerperal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
TOTALS .....	23,453	23,500	485	472	957	327	307	634	215	163	22	15	96	123	Under 5 5 & upwards	1	1		11					4		46	3	38		4		51		9	210																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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*Urban Sanitary District of Bilston.*

(B) New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health during the year 1895, enumerating the Number of Houses Infected, the Total Number of deaths, also the Number of Cases Treated and the Deaths that occurred in Infectious Hospitals.

		Smallpox.	Scarlatina.	Diphtheria	Membranous Croup	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
Houses infected .. .. .		1	38	2	9		24						xxx	xx
Total cases reported among persons belonging to District .. .. . <i>Age not given on Notification.</i>		3	48	2	9		30					17	xxx	xx
Total deaths reported among persons belonging to District .. .. .	Under 5	1	1		11								46	3
	5 & upwds												5	
Cases treated in Hospital among persons belonging to District .. .. .	Under 5	1	8											
	5 & upwds	2	15				6							
Deaths occurring in Hospital among persons belonging to District .. .. .	Under 5	1	1											
	5 & upwds						1							

Is "Notification of Infectious Diseases" Compulsory in the District?—*Yes.* Since when?—*February 1st, 1890.*

Is Measles included among the Diseases notified?—*No.*

Is Whooping Cough " " " " *No.*

Is an Isolation Hospital available for the District?—*Yes, temporary arrangement.*

Arears of District in acres?—*1866.*

Signed, T. RIDLEY BAILEY, M.D., Edin., M.O.H.





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